



# UNITED STATES PATENT AND TRADEMARK OFFICE

*mn*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,351	03/12/2004	David Dehghan	MSFT122464	6346
26389 7590 04/09/2007 CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			EXAMINER LE, MIRANDA	
			ART UNIT 2167	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/799,351

Applicant(s)

DEGHAN ET AL.

Examiner

Miranda Le

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 05/05/05, 04/18/06, 10/17/06.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This communication is responsive to Amendment, filed 12/26/2006.

Claims 1-29 are pending in this application.

***Response to Arguments***

2. Applicant's request for reconsideration of withdrawing the rejection of the last Office Action as it did not address the merits of pending claims 1-29, and instead addressed claims 1-11 of the copending application that cited for IDS since it was mistakenly entered and published as a substitute specification, drawings, and claims, is persuasive and; therefore, the last Office Action is withdrawn, and a new non-final Office Action follows.

***Information Disclosure Statement***

3. Applicants' Information Disclosure Statements, filed 05/05/2005, 04/18/2006, 10/17/2006, have been received, entered into the record, and considered. See attached form PTO-1449.

***Claim Objections***

4. Claim 23 is objected to because of the following informalities: claim 23 improperly depends on claim 28, "the method of claim 28" should be changed to "the method of claim 18". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng et al. (US Patent No. 6,457,076).

Cheng anticipated independent claims 1, 11, 18, 24, 25, 29 by the following:

**As per claim 1**, Cheng teaches a software update distribution system for distributing a software update over a communication network for distribution to client computers, comprising:

a root update service node (*i.e. the service provider computer system, Fig. 1, col. 3, lines 26-40*) (*col. 2, line 63 to col. 3, line 64*);

at least one child update service node (*i.e. computer system of the software vendor, Fig. 1, the client computer, col. 3, lines 41-64*) (*col. 2, line 63 to col. 3, line 64*);

wherein the root update service node and the at least one child update service node are organized in a hierarchical manner such that the root update service node is a parent update service node to at least one child update service node, wherein each update service node, except the root update service node, has a parent update service node, and wherein each of the at least one child update service node may also be a parent update service node (*i.e. computer system of the software vendor, col. 3, lines 41-64*) to at least one other child update service node (*i.e. the client computer, col. 3, lines 41-64*) (*Fig. 1, col. 2, line 63 to col. 3, line 64*); and

wherein the root update service node obtains a software update (*i.e. database that stores software update information, col. 2, line 63 to col. 3, line 13*) from a software provider (*i.e. software vendors, col. 2, line 63 to col. 3, line 13*) and wherein each of the at least one child update service nodes obtains the software update for distribution to client computers (*i.e. synonymously client computer, col. 3, lines 26-40*) by obtaining the software update from its parent software update node (*i.e. computer system of the software vendor, col. 3, lines 41-64*) (*col. 2, line 63 to col. 3, line 64*).

**As per claim 11**, Cheng teaches an update service node for distributing software updates to client computers and to child update service nodes (Fig. 1), comprising:

an update store for storing software updates (*i.e. the database may be maintained by a set of software vendors of the software products in association with the service provider, line 63 to col. 3, line 13*);

an update web service through which the update service node obtains software updates from a parent update service node over a communication network, and through which the update service node distributes software updates to child update service nodes over the communication network (*i.e. The network location provided in the software update information is specified by one or more universal resource locators (URL), col. 3, lines 14-25*);

an administration application programming interface (API) through which an administrator, using an administration user interface, establishes rules for distributing software updates to the child update service nodes (*i.e. The user profile database 711 generally stores information descriptive of each user. This information may include the user ID, password, digital*

Art Unit: 2167

*signature, credit card numbers and the like, for use by the security 701, communications 703, and payment 705 modules, col. 20, lines 33-59);*

a child update module for determining which software updates are available to be distributed to the child update service nodes according to the established rules (*i.e. When a software vendor or the service provider updates the update database 709 with information for a new software update, the notification table 1417 may be scanned to identify those users by user ID 1401 to notify about the update. The email flag 1416 for a user is checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59).*

**As per claim 18**, Cheng teaches a method for a child update service node to obtain a software update from a parent update service node in a software update distribution system over a communication network, the method comprising the steps of:

(a) obtaining a list of software products from the parent update service node (*i.e. the service provider computer system, col. 3, lines 26-40*) for which the parent update service node provides software updates (*i.e. The client application 104 then analyzes 204 the client computer 101 to determine a list of installed software products, col. 7, lines 46-53*);

(b) selecting a software product from the list of software products (*i.e. For each of the installed software products on the list, the client application 104 determines 205 if there is an applicable, or relevant update for the software product, col. 7, lines 54-61*);

(c) submitting a request to the parent update service node for available software updates corresponding to the selected software product (*i.e. This determination is made in consultation*

*with the service provider computer 102, which maintains, as further described below, a database including a list of available software updates for numerous software products of diverse software vendors, col. 7, lines 54-61);*

(d) obtaining a software update list identifying software updates for the selected software product available to the child updates service node (*i.e. These software products will typically be from numerous diverse software vendors, a number of whom will maintain software vendor computers 103 on the network 106 (col. 7, lines 46-53);*

(e) obtaining each software update in the software update list from the parent update service node (*i.e. This display 400 includes the name 401 of each software product identified on the client computer 101, and remarks 403 displayed next to the name indicating whether the software product is already up-to-date, col. 7, line 62 to col. 8, line 20.*

**As per claim 24,** Cheng teaches a computer-readable medium bearing computer-executable instructions which, when executed on an update service computer (see Fig. 1), carry out the method comprising the steps of:

(a) obtaining a list of software products from the parent update service node (*i.e. the service provider computer system, col. 3, lines 26-40)* for which the parent update service node provides software updates (*i.e. The client application 104 then analyzes 204 the client computer 101 to determine a list of installed software products, col. 7, lines 46-53);*

(b) selecting a software product from the list of software products (*i.e. For each of the installed software products on the list, the client application 104 determines 205 if there is an applicable, or relevant update for the software product, col. 7, lines 54-61);*

(c) submitting a request to the parent update service node for available software updates corresponding to the selected software product (*i.e. This determination is made in consultation with the service provider computer 102, which maintains, as further described below, a database including a list of available software updates for numerous software products of diverse software vendors, col. 7, lines 54-61*);

(d) obtaining a software update list identifying software updates for the selected software product available to the child updates service node (*i.e. These software products will typically be from numerous diverse software vendors, a number of whom will maintain software vendor computers 103 on the network 106 (col. 7, lines 46-53)*);

(e) obtaining each software update in the software update list from the parent update service node (*i.e. This display 400 includes the name 401 of each software product identified on the client computer 101, and remarks 403 displayed next to the name indicating whether the software product is already up-to-date, col. 7, line 62 to col. 8, line 20*).

**As per claim 25**, Cheng teaches a method for distributing software updates to a child update service node, executed on a parent update service node in a software update distribution system over a communication network, the method comprising:

(a) receiving a request for a software update catalog from a child update service node, the software update catalog identifying software products for which the parent update service node provides software updates (*i.e. Software updates may be identified for inclusion in the update database 709 by the service provider periodically searching the Internet to identify software*



*vendors providing updates of software products. Most software vendors will maintain Internet sites that indicate the presence of new software updates, col. 19, lines 8-22);*

(b) returning a software update catalog to the child update service node (*i.e. For each identified software vendor, the service provider downloads the software updates to the updates database 709, col. 19, lines 8-22);*

(c) receiving a request for a list of software updates for a selected software product available for the child update service node (*i.e. The client application 104 then analyzes 204 the client computer 101 to determine a list of installed software products, col. 7, lines 46-53);*

(d) determining whether any software updates for the selected software product are available for the child update service node (*i.e. For each of the installed software products on the list, the client application 104 determines 205 if there is an applicable, or relevant update for the software product, col. 7, lines 54-61);*

(e) returning a software update list identifying those software updates for the selected software product determined to be available for the child update service node to the child update service node, the software update list identifies available software updates according to a unique update identifier (*i.e. The client application 104 displays 206 the list of applicable software updates to the user, for review and selection thereof of updates for purchase and installation, col. 7, line 62 to col. 8, line 20);*

(f) receiving an update request for metadata corresponding to an available software update from the child update service node, the update request identifying the available software update by its unique update identifier (*i.e. The user may obtain additional information by selecting a name or remark of a particular software product, col. 7, line 62 to col. 8, line 20);*

(g) returning update metadata corresponding to the software update identified in the update request, the update metadata including information corresponding to the software update including a reference for obtaining the corresponding update payload (*i.e. This information may be stored in the service provider computer 101, or obtained directly from the software vendor computers 103 as needed using URLs associated with such information. The user may limit the list to only those software products that need updating, rather than all installed software products, by selecting check box 407, col. 7, line 62 to col. 8, line 20*).

**As per claim 29**, Cheng teaches a computer-readable medium bearing computer-executable instructions which, when executed on an update service computer (see Fig. 1), carry out the method comprising the steps of:

(a) receiving a request for a software update catalog from a child update service node, the software update catalog identifying software products for which the parent update service node provides software updates (*i.e. Software updates may be identified for inclusion in the update database 709 by the service provider periodically searching the Internet to identify software vendors providing updates of software products. Most software vendors will maintain Internet sites that indicate the presence of new software updates, col. 19, lines 8-22*);

(b) returning a software update catalog to the child update service node (*i.e. For each identified software vendor, the service provider downloads the software updates to the updates database 709, col. 19, lines 8-22*);

Art Unit: 2167

(c) receiving a request for a list of software updates for a selected software product available for the child update service node (*i.e. The client application 104 then analyzes 204 the client computer 101 to determine a list of installed software products, col. 7, lines 46-53*);

(d) determining whether any software updates for the selected software product are available for the child update service node (*i.e. For each of the installed software products on the list, the client application 104 determines 205 if there is an applicable, or relevant update for the software product, col. 7, lines 54-61*);

(e) returning a software update list identifying those software updates for the selected software product determined to be available for the child update service node to the child update service node, the software update list identifies available software updates according to a unique update identifier (*i.e. The client application 104 displays 206 the list of applicable software updates to the user, for review and selection thereof of updates for purchase and installation, col. 7, line 62 to col. 8, line 20*);

(f) receiving an update request for metadata corresponding to an available software update from the child update service node, the update request identifying the available software update by its unique update identifier (*i.e. The user may obtain additional information by selecting a name or remark of a particular software product, col. 7, line 62 to col. 8, line 20*);

(g) returning update metadata corresponding to the software update identified in the update request, the update metadata including information corresponding to the software update including a reference for obtaining the corresponding update payload (*i.e. This information may be stored in the service provider computer 101, or obtained directly from the software vendor computers 103 as needed using URLs associated with such information. The user may limit the*

Art Unit: 2167

*list to only those software products that need updating, rather than all installed software products, by selecting check box 407, col. 7, line 62 to col. 8, line 20).*

**As per claim 2**, Cheng teaches the root update service node comprises:

an update store for storing software updates (*i.e. the database may be maintained by a set of software vendors of the software products in association with the service provider, line 63 to col. 3, line 13*);

an update web service through which the root update service node distributes software updates to its child update service nodes over the communication network (*i.e. The network location provided in the software update information is specified by one or more universal resource locators (URL), col. 3, lines 14-25*); and

a software provider interface through which a software provider submits its software update over the communication network to the root update distribution node (*i.e. The network location provided in the software update information is specified by one or more universal resource locators (URL), col. 3, lines 14-25*).

**As per claim 3**, Cheng teaches each of the at least one child update service nodes comprises:

an update store for storing software updates (*i.e. the database may be maintained by a set of software vendors of the software products in association with the service provider, line 63 to col. 3, line 13*);

an update web service through which the child update service node obtains software updates from its parent update service node over the communication network and through which the child update service node distributes software updates to its child update service nodes over the communication network (*i.e. Either the client application or the service provider computer then uses the network location specified in the database to connect to the computer system of the software vendor and download the software update from there to the client computer, col. 3, lines 41-64*);

an administration application programming interface (API) through which an administrator, using an administration user interface, establishes rules for distributing software updates to its child update service nodes (*i.e. The user profile database 711 generally stores information descriptive of each user. This information may include the user ID, password, digital signature, credit card numbers and the like, for use by the security 701, communications 703, and payment 705 modules, col. 20, lines 33-59*); and

a child update module for determining which software updates are available to be distributed to its child updates service nodes according to the established rules (*i.e. When a software vendor or the service provider updates the update database 709 with information for a new software update, the notification table 1417 may be scanned to identify those users by user ID 1401 to notify about the update. The email flag 1416 for a user is checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59*).

As to claims 4, 12, Cheng teaches each of the at least one child update service nodes further comprises:

a reporting module (*i.e. reporting tools, col. 21, lines 45-59*) for generating and sending update activity reports to the parent update service node;

an authentication and authorization module for determining whether an update service node is authorized to obtain software updates from the child update service node (*i.e. When a software vendor or the service provider updates the update database 709 with information for a new software update, the notification table 1417 may be scanned to identify those users by user ID 1401 to notify about the update. The email flag 1416 for a user is checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59*);

a client update module for distributing software updates to client computers (*i.e. The client application automatically downloads a portion of the database to the client computer, preferably to update a mirror of portions of database. From client database, the client application determines which software updates are applicable or relevant to the user's computer, col. 3, lines 26-40*).

As to claims 5, 13, Cheng teaches the updates store comprises an update content store in which the update payload for the software update is stored, and an update information store in which update metadata for the software update is stored, and an update information store in which update metadata for the software update is stored (*i.e. The software update information in the database specifies the software update program or files and their network location on the*

*computer system of the software vendors, which computer systems are connected over the network to the service provider computer system. The database further stores information that describes an installation process for installing the software update on a user's computer, col. 2, line 63 to col. 3, line 13).*

**As to claims 6, 14,** Cheng teaches the child update service node obtains the software update from the parent update service by obtaining update metadata for the software update from the parent update service node, and separately obtaining the update payload for the software update from the parent update service node (*i.e. Either the client application or the service provider computer then uses the network location specified in the database to connect to the computer system of the software vendor and download the software update from there to the client computer. The client application uses the format information to determine the appropriate installation process associated with the software update, and installs the software update using the proper installation process, col. 3, lines 41-64).*

**As to claims 7, 15,** Cheng teaches the child update service node obtains the update payload for the software update from the parent update service node in a just-in-time fashion (*i.e. The system enables any software vendor to provide software updates to the service provider, ensuring that subscribing users have the software update on a timely basis, col. 25, lines 42-60).*

**As to claims 8, 16,** Cheng teaches the client update module distributes software updates to client computers according to rules established by an administrator via the administration API

using the administration user interface (*i.e. The user profile database 711 generally stores information descriptive of each user. This information may include the user ID, password, digital signature, credit card numbers and the like, for use by the security 701, communications 703, and payment 705 modules, col. 20, lines 33-59).*

**As per claim 9**, Cheng teaches the root update service node further comprises a client update module for distributing software updates to client computers (*i.e. Either the client application or the service provider computer then uses the network location specified in the database to connect to the computer system of the software vendor and download the software update from there to the client computer, col. 3, lines 41-64).*

**As to claims 10, 17**, Cheng teaches the child update service may be selectively configured to periodically obtain available software updates from the parent update service node (*i.e. The URL monitor 715 compiles the list of URLs in the update database 709 and verifies on a periodic basis whether they have changed, col. 21, line 60 to col. 22, line 33).*

**As per claim 19**, Cheng teaches obtaining each software update in the software update list from the parent update service node comprises:

obtaining metadata corresponding to the software update from the parent update service node (*i.e. The client application uses the format information to determine the appropriate installation process associated with the software update, and installs the software update using the proper installation process, col. 3, lines 41-64).*



obtaining the update payload (*i.e. Either the client application or the service provider computer then uses the network location specified in the database to connect to the computer system of the software vendor and download the software update from there to the client computer, col. 3, lines 41-64*).

**As per claim 20**, Cheng teaches obtaining the update payload comprises obtaining the update payload on a just-in-time fashion when needed by a child update service node or a client update service node (*i.e. The system enables any software vendor to provide software updates to the service provider, ensuring that subscribing users have the software update on a timely basis, col. 25, lines 42-60*).

**As per claim 21**, Cheng teaches the request to the parent update service node for available software updates corresponding to the selected software product includes an update anchor, the update anchor identifying the latest revisions and updates for the selected software product currently available at the update service node (*i.e. If there is an update available, in that the release information in the table indicates a version later than the version that is installed on the client computer 101, then the service provider computer 102 returns 1006 a handle the update ID 819 to the system analyzer 907. If the release of the software product installed on the client computer 101 is the most recent version, then the service provider computer 102 checks the next entry. This process continues until all of the installed software products are checked, col. 14, lines 29-44*).

**As per claim 22**, Cheng teaches the step of first submitting an authentication and authorization request to the parent update service node, and obtaining an authorization token in response to the authentication and authorization request; and wherein each subsequent communication from the child update service node to the parent update service node is made with the authorization token *(i.e. When a software vendor or the service provider updates the update database 709 with information for a new software update, the notification table 1417 may be scanned to identify those users by user ID 1401 to notify about the update. The email flag 1416 for a user is checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59).*

**As per claim 23**, Cheng teaches steps (a)-(e) are performed on a periodic basis *(i.e. Software updates may be identified for inclusion in the update database 709 by the service provider periodically searching the Internet to identify software vendors providing updates of software products. Most software vendors will maintain Internet sites that indicate the presence of new software updates, col. 19, lines 8-22).*

**As per claim 26**, Cheng teaches prior to steps (a)-(g):

receiving an authentication and authorization request from the child update service node *(i.e. When a software vendor or the service provider updates the update database 709 with information for a new software update, the notification table 1417 may be scanned to identify those users by user ID 1401 to notify about the update. The email flag 1416 for a user is*

Art Unit: 2167

*checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59);*

determining whether the child update service node is authorized to obtain software updates from the parent update service node, returning an authorization token to the child update service node (*i.e. The email flag 1416 for a user is checked, and if true, the user's email address 1405 is obtained from the user table 1400 and the user notified by email with information identifying the new software update, col. 20, lines 33-59); and*

wherein each subsequent communication from the child update service node to the parent update service node is made with the authorization token (*i.e. authentication token, col. 20, lines 33-59*).

**As per claim 27**, Cheng teaches receiving an update request for the update payload corresponding to the software update identified in the update request (*i.e. The user may select one or more software products to update. To update one of the software products, the user selects the software product for update by selecting (e.g. double-clicking) the line including the software product, or by single clicking on the line, and then clicking the retrieve button 409, col. 8, lines 21-31*);

returning the update payload corresponding to the software update identified in the update request (*i.e. When all the desired updates have been selected, the user may click on the continue button 411 to begin the installation process, col. 8, lines 21-31*);

As per claim 28, Cheng teaches the request for a list of software updates for a selected software product includes an update anchor identifying the latest update information on the child update service node corresponding to the selected software product (*i.e. The update database 709 has been described as a set of tables. Alternatively, the update database 709 may be implemented in an object oriented framework with each table being a class, and the fields of the tables being attributes and methods of the class. The class type is then usefully defined by the primary key of the table, col. 10, line 63 to col. 11, line 4*); and

wherein determining whether any software updates for the selected software product are available for the child update service node comprises determining whether there are any updates available to the child update service node according to the update anchor and according to rules associated with the distribution of software updates to the child update service node (*i.e. The update database 709 has been described as a set of tables. Alternatively, the update database 709 may be implemented in an object-oriented framework with each table being a class, and the fields of the tables being attributes and methods of the class. The class type is then usefully defined by the primary key of the table, col. 10, line 63 to col. 11, line 4*).

Art Unit: 2167

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Miranda Le  
March 16, 2006